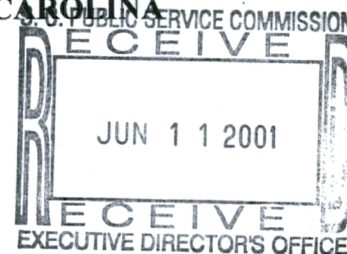


POSTED
DBW 6-11-01

REBUTTAL TESTIMONY OF MR. JAMES W. STEGEMAN
ON BEHALF OF BELL SOUTH TELECOMMUNICATIONS, INC.
BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA
DOCKET NO. 2001-65-C

JUNE 11, 2001



Q. PLEASE STATE YOUR NAME AND BUSINESS AFFILIATION.

A. My name is James W. Stegeman. I am the President of CostQuest Associates, Inc. I am testifying on behalf of BellSouth Telecommunications, Inc. ("BellSouth", "BST" or the "Company").

Q. ARE YOU THE SAME JAMES STEGEMAN WHO FILED DIRECT TESTIMONY IN THIS PROCEEDING ON BEHALF OF BELL SOUTH?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. In my rebuttal testimony, I address BSTLM© modeling issues raised in the testimony of Cynthia M. Wilsky and Don J. Wood, on behalf of NewSouth Communications Corp., Broadslate Networks of SC, Inc., ITC^DeltaCom Communications, Inc., KMC Telecom III, Inc., and NuVox Communications, collectively the "CLEC Coalition."

RETURN DATE: OK DBW
SERVICE: OK DBW

1 **Q. CAN YOU PROVIDE AN OVERVIEW OF THE BSTLM MODELING ISSUES**
2 **RAISED BY THESE PARTIES THAT YOU WILL ADDRESS?**

3
4 **A.** Yes. Ms. Wilsky and Mr. Wood raised several issues regarding the design and running of
5 BSTLM that require clarification and/or correction:

- 6 ▪ What does a “Loop is a Loop” mean?
- 7 ▪ Do BSTLM results match up with HAI and BCPM results and are such
8 comparisons relevant?
- 9 ▪ Should certain costs be attributed via DS0 equivalents?
- 10 ▪ Are multiple scenario runs inappropriate?
- 11 ▪ Does the BSTLM’s run time impact the ability to perform a thorough analysis of
12 the model’s results?
- 13 ▪ Does the BSTLM run reliably within BellSouth’s recommended operating
14 environments?
- 15 ▪ Is special software required to install the model?
- 16 ▪ Has the BSTLM been properly tested?

17
18 **Q. ON THE ISSUE OF A “LOOP IS A LOOP”, MR. WOOD TAKES ISSUE WITH**
19 **YOUR CLAIM TO “NOT ASSUME THAT A LOOP IS A LOOP.” AT PAGES 15**
20 **AND 16 OF HIS TESTIMONY, HE SPECIFICALLY CLAIMS THAT THERE IS**
21 **NO BASIS FOR TREATING A GIVEN NETWORK ELEMENT ANY**
22 **DIFFERENTLY DEPENDING ON THE SERVICE THAT USES THAT**
23 **ELEMENT. CAN YOU CLARIFY YOUR STATEMENT AND RESPOND TO**
24 **MR. WOOD’S STATEMENTS?**

1 A. Yes. The statement in my direct testimony that Mr. Wood has taken issue with is:

2 *“The model must reflect the diversity of services and UNEs offered by BST. It*
 3 *must not assume ‘a loop is a loop’. ”*

4 This simple statement has profound implications. In laying out the approach of the
 5 BSTLM, I was asked to design an application which reflects forward-looking, generally
 6 accepted engineering practices for a modeled network that provisions multiple services
 7 within the population of actual BellSouth customers. With input from engineers, the
 8 BSTLM was designed to provision loops (specifically network elements) based upon a
 9 customer’s location and service. The dependence of customer location and service to
 10 network engineering is illustrated below. In all cases, it is clear that the “loop,” or more
 11 specifically the components serving the customer, must vary depending on the customer’s
 12 location and service request. This necessary variance is the basis of my statement that
 13 “the model must reflect the diversity of UNEs offered by BST.”

14
 15 **Q. CAN YOU PROVIDE EXAMPLES OF NETWORK ELEMENT VARIANCE**
 16 **BASED UPON CUSTOMER LOCATION AND SERVICE DEMAND?**

17
 18 A. Yes. Examples of network element variance based upon customer location and service
 19 demand include the following:

- 20 ▪ Service offerings may alter the make up of a loop. While the copper wire may be the
 21 same, electronics at the remote terminal and/or at the central office typically will vary
 22 depending on the service requiring the loop. For example, ISDN service requires a
 23 different type of plug-in card than does Plain Old Telephone Service (POTS).
 24 Similarly, if a DS1 is provisioned to the same site, the loop will need to have a
 25 different network interface and modem at the customer’s site and a different line card

at the central office. In addition, the DS1 service will require two copper pairs. As with ISDN, the DS1 service creates additional requirements above and beyond those for a POTS loop.

- Different services will tend to utilize loops of different lengths. Some services are sold primarily to customers near the serving central office or in densely concentrated areas (such as DSL, Centrex, DS1 and higher speed services), while other services are sold throughout a carrier's territory (such as POTS). This variation in service dispersion and variation in loop lengths impacts each service's cost. This results from the economies that can exist due to distance and density. As such, when we generate the expected costs of services, we should take into account the economics resulting from the propensity of where services are sold.

While Centrex, DS1 and POTS are retail services, they illustrate why various UNE loop offerings may vary in cost. For example, the 4-wire UNE loop may represent services that have a different geographic spread than a 2-wire UNE loop. This can be discerned from the current customer base, which provides a good prediction of where future services of the same type may be sold.

Q. IS THE IDENTIFICATION OF THE USE OF A LOOP AND ITS RELATED FACILITIES KEY TO DEVELOPING ACCURATE COSTS OF A SERVICE/UNE?

A. Yes. Mr. Wood states on page 16 of his testimony that "There is absolutely no basis for treating a given network facility differently in a cost study depending on

1 the service that it will be used to provide.” I agree that when two services use the
2 same facilities in the same way, there should not be a difference in cost.

3 However, different services can use differing amounts of the same network
4 facilities and/or different network facilities. As I stated above, the type of service
5 offered will impact the amount of network facilities that are used, the type of
6 network facilities required, and the resulting cost of the “loop.”

7
8 The very concept that services can utilize elements of the network in different ways is
9 why there is more than one loop UNE.

10
11 **Q. ON PAGES 31 AND 32, MR. WOOD COMPARES THE BSTLM TO THE BCPM**
12 **AND HAI. IS HIS MODEL COMPARISON VALID?**

13
14 **A.** No. I recommend that Mr. Wood’s comparison to the HAI and BCPM and his resulting
15 conclusions be dismissed since they provide no support of their model comparison
16 specifically for South Carolina. Without South Carolina evidence to consider, I cannot
17 evaluate whether their arguments are relevant for South Carolina.

18
19 **Q. EVEN THOUGH YOU CANNOT ANALYZE HIS MODEL COMPARISON FOR**
20 **SOUTH CAROLINA, CAN YOU RESPOND TO HIS REFERENCE TO MODEL**
21 **COMPARISONS IN FLORIDA AND LOUISIANA?**

22
23 **A.** Yes. In both states, I recommended that their analysis be dismissed. There are three
24 primary reasons (and a number of secondary reasons) why their comparison of BSTLM
25 to these proxy models is invalid.

1
2 First, the BCPM and HAI were designed as universal service models. This is important
3 in that universal service models have generally been based on a different set of
4 assumptions. The most important difference in assumptions is that a universal service
5 model (e.g., BCPM or HAI) reflects the cost and practice of the most efficient potential
6 POTS provider in an area based upon publicly available inputs. An approach that
7 appears to have been rejected by the 8th Circuit as a means for developing the cost of
8 UNEs (*Iowa Utils. Bd. v. FCC*, 219 F.3d 744, ____ (8th Cir. 2000) (slip op. at 7-8)). By
9 comparison, a UNE model is typically based upon (to the extent possible) actual data that
10 represents the costs the incumbent carrier is expected to incur in providing multiple
11 services on a going-forward basis.

12
13 Second, the BCPM and HAI rely upon public sources of data regarding customers, wire
14 centers, and inputs; this data does not necessarily reflect the actual network, practices,
15 customers, and wire centers of BellSouth.

16
17 Third, the proxy model networks are based upon different engineering inputs, guidelines,
18 and modeling approaches that will not necessarily match the BSTLM. For example, both
19 the BCPM and HAI “build” to an abstraction of where POTS customers may be. The
20 BSTLM estimates the costs of constructing an efficient, forward-looking network capable
21 of supporting POTS and advanced services built along the roads and terminating at the
22 locations where customers live.

23
24 **Q. IF ONE WANTED TO MAKE SUCH A MODEL COMPARISON, ARE THERE**
25 **OTHER ISSUES THAT WOULD NEED TO BE ADDRESSED?**

1
2 A. Yes. If any comparison of the models is made, a detailed study needs to be conducted
3 comparing the inputs, methods, and outputs of all the models, not just a single output
4 chosen by Mr. Wood, unless one wants to make a gross assumption like Mr. Wood did on
5 page 30 that “all else equal”. With this type of assumption, Mr. Wood ignores all the real
6 differences in the models. These models have thousands of inputs and almost as many
7 outputs. To compare just a single output record (which I am not even sure is
8 comparable), without looking at all aspects of the model, is perilous. For example, for
9 each of the models do we know:

- 10 ▪ How many drop feet are installed?
- 11 ▪ How many Distribution Terminals are installed?
- 12 ▪ How many Feeder Distribution Interfaces are installed?
- 13 ▪ How many DLCs are installed?
- 14 ▪ To which customers is the model building, all housing units or only working
15 lines?

16
17 In addition to the counts of plant statistics, if one were genuinely comparing models one
18 would also need to compare the size of each plant component:

- 19 ▪ Cable,
- 20 ▪ Drop, and
- 21 ▪ Terminals.

22
23 If a comparison were made, we would also need to look at model inputs and engineering
24 algorithms as well as comparing the customer locations. In the end, once all these
25 comparisons are made it might be possible to make reasonable inferences from the model

1 comparison. Until that point, it seems pointless and potentially misleading to compare
2 one statistic from the models.

3
4 **Q. HAS THIS ISSUE OF THE MODEL COMPARISONS OF HAI, BCPM AND**
5 **BSTLM BEEN RAISED BY PARTIES, INCLUDING MR. WOOD, IN OTHER**
6 **STATES?**

7
8 A. Yes. This issue has been raised in Florida, Louisiana, and Alabama.

9
10 **Q. HAVE THE FLORIDA, LOUISIANA, OR ALABAMA STATE COMMISSIONS**
11 **OR THEIR STAFFS MADE ANY RECOMMENDATIONS ON THIS ISSUE?**

12
13 Yes. The Florida Staff recently made a recommendation to the Florida Commission in
14 Docket No. 990649-TP (BellSouth UNE proceeding in Florida) upon which the Florida
15 Commission based its recently released order on May 25, 2001 in regard to Docket No.
16 990649-TP (BellSouth UNE proceeding in Florida). In the Florida Commission order
17 and the Florida Staff recommendation, there was no reference to the comparison of feeder
18 and distribution route distance comparison between the models made at that time by
19 AT&T and WorldCom witnesses Pitkin and Donovan (Mr. Wood has since adopted the
20 same arguments in Louisiana, Alabama, and in this proceeding). I infer from this
21 omission that the Florida Commission and Florida Staff could not support the claims
22 made by AT&T and WorldCom. With regard to the difference in approach and inputs
23 between a Universal Service and a UNE model, the Florida Staff's recommendation
24 supports some of my arguments stated above. On page 265 of its recommendation, the
25 Florida Staff states that:

1 *“Staff agrees with BellSouth that the inputs ordered in PSC-99-0068-*
2 *FOF-TP were for a specific purpose and are not appropriate in this*
3 *instance. This docket (Docket No 990649-TP) is to determine generic*
4 *prices for UNEs provided by BellSouth; the US proceeding was opened in*
5 *response to a legislative mandate. As this commission stated in its order*
6 *in the universal service docket, “[W]e note that this proceeding is not to*
7 *determine the actual cost faced by any of these LECs, but is rather to*
8 *estimate the forward looking cost of an efficient provider building a*
9 *scorched node network all at once, all at the same time.” (Order No PSC-*
10 *99-0069-FOF-TP, page 129) Furthermore, the data provided in the*
11 *Universal Service docket is more than 2 years old and in many cases the*
12 *results were not company-specific.”*

13 The Florida Commission seems to concur with their Staff on page 188 of their order:

14 *“...we agree with BellSouth that the inputs ordered in our Universal*
15 *Service proceeding were for a different purpose and are not appropriate*
16 *here.”*

17 The Louisiana and Alabama Commissions have not yet ruled as their hearings took place
18 just within the last two months.

19
20 **Q. EVEN IF WE COULD ASSUME ALL ELSE IS EQUAL AND THE**
21 **COMPARISON OF THE MODELS COULD BE BOILED DOWN TO LOOKING**
22 **AT THE ROUTE MILES AS MR. WOOD INDICATED, IS HIS ROUTE**
23 **MILEAGE COMPARISON IN OTHER STATES VALID?**
24

A. No. In his use of route distances in Louisiana (as an example), Mr. Wood has compared apples to oranges. The BCPM and HAI do not break out the shared routing of Feeder and Distribution. Therefore, if 5 miles, for example, of route were shared between a distribution and feeder route, the BCPM and HAI would have reported this in both the distribution and feeder distances. On the other hand, the way the BSTLM route mileage is reported by Mr. Wood in Louisiana, this distance shows up in NEITHER the distribution nor feeder. Rather, it shows up as a shared route. If we revised his Louisiana Exhibit CMW/DJW-4, assuming that the reported values are correct, to reflect these differences, it would show the following:

| Equipment Type | HAI 5.0 | BCPM 3.0 | BSTLM |
|--------------------------|---------|----------|--------|
| Distribution Route Miles | 40,278 | 30,226 | 38,522 |
| Feeder Route Miles | 11,445 | 30,611 | 11,094 |
| Total | 51,723 | 60,837 | 49,616 |

From this restated table, we can see that the Louisiana differences are not as great as represented by Mr. Wood. But, keep in mind that the models design the network differently, use different inputs, make different modeling assumptions, use different engineering approaches, and are based on completely different sets of customer locations. Also keep in mind, that Mr. Wood provides no empirical data for South Carolina.

Q. MR. WOOD CLAIMS AT PAGES 36-37 OF HIS TESTIMONY THAT THERE IS NO BASIS TO ATTRIBUTE DLC AND FIBER COSTS ON THE BASIS OF “DS0” EQUIVALENTS. RATHER, HE INDICATES THAT THIS TYPE OF

PLANT SHOULD BE ALLOCATED ON A “PAIR” EQUIVALENT BASIS. DO YOU AGREE?

A. No. Investments should be attributed in a manner that best reflects cost causation. In addition, any attribution of costs should be competitively neutral and fair and it should also produce unbiased results. The DS0 approach to apportioning the fiber and portions of the DLC is reasonable, is competitively neutral, and best reflects cost causation.

There is ample evidence to demonstrate that DLC equipment is sized and utilized on a “DS0” basis. In fact, the DS0 cost causality link is supported by the technical specifications of DLC systems that were attached to Mr. Wood’s testimony. Specifically, we find the following excerpt from Exhibit DJW-3 indicates that DLC plant is sized on a DS0 basis.

- From the technical specifications of Nortel’s Access Node:

2,688 DS0s per Network Element

Each AccessNode Network Element, using Universal Edge 9000 shelves in a dual bay configuration, may support up to 2,688 DS0s.

The ABM supports up to seven (7) Copper Distribution or Universal Edge 9000 shelves or a combination of them, offering narrowband and xDSL services. One ABM shelf can support up to 2,688 DS0s, 98 DS1s, 9 DS3s or combination of DS1s, DS3s, along OC-3s and OC-3c optical trunks.

In addition, Mr. Wood provided, in Louisiana, documentation on the DISC*S system which clearly labeled its system capacity as channel (equivalent to DS0s) based.

Based on the vendor specifications, it is clear that the DLC systems have DS0-based capacity constraints. This suggests there is cost causality between DS0 quantities and required DLC equipment. In addition, since fiber cables are sized based on the number

of DLC rings which is dependent on the number of DLCs (which is in part dependent on the number of DS0s), it also follows that there is causality between the number of DS0s and the required amount of fibers in a strand. If there were no causal link to the number of fibers, companies would not place fiber cables ranging in size between 12 to over 400 strands. Given that there is a cost causality link, apportioning costs by DS0s is the most reasonable approach and is justified.

Q. IF ONE WERE TO INCORRECTLY ASSUME THAT DLC AND FIBER PLANT SHOULD BE ALLOCATED TO SERVICES BASED ON “PAIR” EQUIVALENTS, IS MR. WOOD’S MODEL ADJUSTMENT VALID AS A WORKAROUND?

A. No. BSTLM automatically sizes and attributes the cost of the DLC equipment and the related fiber based on DS0 equivalents that the user enters into the Service Description table. Currently, there is no option to size DLC equipment and fiber facilities based on DS0’s and then allocate the cost based on some other measure, such as pairs. What Mr. Wood has essentially done with his changes listed on page 7 of Exhibit DJW-4 (excerpt of exhibit is shown below) is modify the DS0 equivalents of services so that they represent pair equivalents.

| Service Description (DS0 Equivalence) | | | | |
|--|-----------------|----------------|-------------------------------|--|
| Service Code | BellSouth Value | Restated Value | Rationale | |
| B - 2WVG UDL ADSL | 32 | 1 | See Wood testimony, Section 3 | |
| C - 2WVG UDL HDSL | 24 | 1 | See Wood testimony, Section 3 | |
| D - 2WVG UDL ISDN | 3 | 1 | See Wood testimony, Section 3 | |
| F - ISDN LOC | 3 | 1 | See Wood testimony, Section 3 | |
| G - ISDN PBX | 3 | 1 | See Wood testimony, Section 3 | |
| J - 4WVG UDL (257C) HDSL | 24 | 2 | See Wood testimony, Section 3 | |
| K - DSI DIGITAL MEGALINK ISDN | 24 | 2 | See Wood testimony, Section 3 | |
| L - 4WVG UDL (257C) DSI | 24 | 2 | See Wood testimony, Section 3 | |
| M - 4WVG USLC DSI | 24 | 2 | See Wood testimony, Section 3 | |
| P - DSI DIGITAL ACCESS | 24 | 2 | See Wood testimony, Section 3 | |
| P - UCL (357C) LOCAL CHANNEL DSI DIGITAL | 24 | 2 | See Wood testimony, Section 3 | |
| T - DSI DIGITAL SWITCHED AREA COMM. PLAN | 24 | 2 | See Wood testimony, Section 3 | |

In effect, with his proposed input values, the BSTLM will size and cost the network based only on “Pair” equivalents. Their approach introduces significant potential for bias, which is likely to disproportionately impact the high bandwidth services. In the Florida UNE proceeding (referred to by Mr. Wood) Mr. Donovan and Mr. Pitkin, witnesses for AT&T and WorldCom, admitted that the use of pair equivalents, rather than DS0 equivalents, would potentially lead to an understatement of investment. The specific excerpt from lines 5-11 on page 39 of their Florida rebuttal testimony (public version filed in Florida Docket No. 990649-TP on July 31, 2000) is shown below.

| | |
|----|---|
| 5 | Q. DOES YOUR APPROACH POTENTIALLY UNDERSTATE |
| 6 | INVESTMENT? |
| 7 | A. Yes. As we understand the DLC calculations, the DS0 equivalents are not |
| 8 | only used to allocate investments but are also used to size the DLC |
| 9 | equipment. Therefore, by appropriately adjusting down the DS0 |
| 10 | equivalents for the allocation we most likely have also adjusted down the |
| 11 | capacity requirements of the DLC optical equipment. |

Q. IS IT POSSIBLE TO TEST FOR THE DEGREE OF BIAS THAT WOULD BE INTRODUCED IF ONE WERE TO ACCEPT MR. WOOD’S RECOMMENDATION?

A. Yes. To test his approach and determine if a true bias is introduced, I performed a comparison run using the filed version of the BSTLM. The first run was made using the BellSouth filed BST2000-SC scenario. A second run was made using Mr. Wood’s proposed DS0 equivalents contained in Exhibit DJW-4 (e.g., ‘p-DS1 DIGITAL

1 ACCESS' DS0 equivalents is set to 2 instead of the default of 24). As I postulated, the
2 use of his proposed workaround did in fact underbuild the total South Carolina network
3 for all services by almost 2.8%. As to which services were impacted, the services listed
4 in their table had a net reduction in BSTLM investment of \$16.1 million (a 47%
5 reduction). However, the services not listed had a net increase in investment of only \$0.9
6 million. If his approach was truly unbiased, the investment for these services that were
7 not listed should have gone up by \$16.1 million. The net effect of his proposed change, in
8 a situation where the model could build based on DS0s and allocate investment based on
9 Pairs, would be to shift investment from high bandwidth services that caused the
10 investments to POTS-like services. This would have the effect of burdening POTS-like
11 customers with unwarranted higher costs.

12
13 As demonstrated, Mr. Wood's approach distorts the cost of their listed high bandwidth
14 services and, indirectly, the cost of all services. It should also be noted that the services
15 listed by Mr. Wood in exhibit DJW-4 (that would be impacted by DLC and Fiber
16 equipment) represent approximately seven-tenths of 1% of the BellSouth services in
17 South Carolina.

18
19 Underbuilding the network by 2.8%, understating some service costs by 47%, and biasing
20 all service costs, is an unreasonable approach for dealing with services that represent
21 approximately seven-tenths of 1% of the services provisioned. Because the use of DS0s
22 reflects cost causation and since the work around recommended by Mr. Wood leads to
23 significant bias, it is best to continue with the current BSTLM's use of DS0s to apportion
24 the costs of fiber and portions of the DLC equipment. The DS0 approach is fair, neutral,
25 unbiased, and is supported by cost causality.

1
2 **Q. HAS THIS ISSUE OF THE PROPER METHOD TO APPORTION DLC AND**
3 **FIBER PLANT IN THE BSTLM BEEN RAISED BY PARTIES, INCLUDING MR.**
4 **WOOD, IN OTHER STATES?**

5
6 A. Yes. This issue has been raised in Florida, Louisiana, and Alabama.
7

8 **Q. HAVE THE FLORIDA, LOUISIANA, OR ALABAMA STATE COMMISSIONS**
9 **OR THEIR STAFFS MADE ANY RECOMMENDATIONS ON THIS ISSUE?**
10

11 A. Yes. The Florida Commission recently released their order on May 25, 2001 in regard to
12 Docket No. 990649-TP (BellSouth UNE proceeding in Florida). On page 133 of their
13 order, the Florida Commission stated (in agreement with the Florida Commission Staff
14 recommendation) that:

15 *"Of the two factors, competitive impact or causal linkage, we believe that*
16 *where possible, cost causal connections should get the nod when*
17 *designing cost models. Thus, based on the evidence, we find that the*
18 *BSTLM method of allocating shared investments based on DS0*
19 *equivalents is reasonable."*

20 The Louisiana and Alabama Commissions have not yet ruled as these hearings took place
21 just within the last two months.
22

23 **Q MR. WOOD CONTENDS ON PAGE 38 THAT NO BELL SOUTH WITNESS HAS**
24 **PRESENTED TESTIMONY DURING THE HEARINGS IN LOUISIANA AND**

**ALABAMA THAT DEMONSTRATED THE DS0 APPROACH PROPERLY
REFLECTS COST-CAUSATION? IS THIS TRUE?**

A. No. This is far from the truth. I have personally offered up testimony similar to what was provided above in Florida, Louisiana, and Alabama. In fact, the Florida Commission quoted my testimony as support for its decision that is excerpted above.

**Q. IN NUMEROUS AREAS OF HIS TESTIMONY, MR. WOOD STATES THAT
THERE IS ONLY ONE LEAST COST FORWARD-LOOKING NETWORK AND
THAT MULTIPLE SCENARIO RUNS ARE INAPPROPRIATE. CAN ONE RUN
OF THE BSTLM CAPTURE THE FORWARD-LOOKING COSTS OF ALL
UNES?**

A. It depends. From a modeler's perspective, there are a number of issues that limit the ability of the user to use one run (or, "scenario") of the BSTLM to accurately model all types of unbundled loops offered by BellSouth. First, to use only one scenario may require the user to accurately predict how the customer mix would change over the study period given the existing customer locations and the types and quantities of each service at each location. For example, the user will need to predict how many and which of the existing POTS loops will convert to stand-alone 2-Wire Analog UNEs, how many and which of the existing POTS loops will be converted to ISDN UNE loops, etc.. However, a user of the model may be unable to determine the exact mix of services and customers in the future. In fact as a practical matter, the future is not likely to be known with certainty.

1 Second, if the user attempts to use only one scenario for all UNEs offered by BellSouth,
2 the engineering constraints of a number of the UNE's may be in contrast to each other.
3 For example, in modeling a least-cost forward-looking network, the user may set the
4 limits for copper loops to a user-defined length. However in reality, copper loops beyond
5 that length may exist in BellSouth's current network and may be ordered by CLECs.
6 Yet, if only one scenario in BSTLM were used, no copper loops would exist beyond the
7 model's user-defined copper limit so the costs for BellSouth's unbundled copper loops
8 would not be reflective of any current copper loops beyond that limit that the CLEC
9 would like to order. Such an approach could seriously understate the cost of unbundled
10 copper loops.

11
12 To work around these issues, multiple scenarios may help the user frame the possible
13 future costs based upon the particular cost question being asked. For example, the user,
14 as BellSouth has done, may wish to use a current set of customers as surrogate locations
15 of where a UNE may be sold. As such, the user of the BSTLM selects inputs for a
16 scenario run that will design a forward-looking network that assumes that all of these
17 surrogate customers are engineered in one manner for a particular UNE. However, such
18 specific engineering may not be appropriate for all UNEs. Therefore, if the same set of
19 current customers are used as possible surrogate locations for multiple future UNE
20 customers and the different UNEs sold require different engineering, then multiple runs
21 of the BSTLM may be required due to the current structure and data of the BSTLM.

22
23 **Q. MS. WILSKY CONTENDS THAT SINCE THE BSTLM TAKES SEVERAL**
24 **HOURS TO RUN, IT IS DIFFICULT TO CONDUCT A THOROUGH**
25 **ANALYSIS? DO YOU AGREE?**

No. While it is true that the model takes several hours to run, the actual running of the model occurs with very little user intervention. Therefore, while the clock time may be more involved, the actual analyst work time running the model is minimal. In addition, BellSouth filed the BSTLM in South Carolina in January. Given that Ms. Wilsky filed testimony on June 4, she had almost 5 months to run the model, ample time to conduct a thorough analysis.

Q. MS. WILSKY CLAIMS THAT THE MODEL DOES NOT RUN UNDER THE COMPUTER ENVIRONMENT THAT THE BSTLM USER GUIDE RECOMMENDS. CAN YOU RESPOND TO THIS ISSUE?

A. Yes. I understand that there have been some run-time problems for a single wire center in Louisiana when running the BSTLM in a Windows Millennium Edition ("ME") environment. We have pinpointed the problem as a memory management issue. However, the problem DOES NOT impact the results that the model produces. And, we have provided workaround instructions to those parties that have raised the issue in Louisiana. However, it is important to note that, to our knowledge, no BSTLM run-time issues were encountered and/or reported in South Carolina. This is contrary to Ms. Wilsky's footnote 2 on page 5 of her testimony that indicates that they have run into problems.

The Louisiana run-time issue does exemplify that, when a user does have an issue or problem with running the BSTLM, BellSouth has responded and provided workarounds. In fact, BellSouth even provided a PC for Ms. Wilsky's use on an expedited basis.

1
2 **Q. THE ABOVE RUN-TIME PROBLEM OCCURRED UNDER THE WINDOWS**
3 **MILLENNIUM EDITION (“ME”), IS THIS OPERATING SYSTEM**
4 **RECOMMENDED FOR THE BSTLM?**

5
6 A. No. The BSTLM User Manual specifically states the preferred computer environment
7 on page 8:

8 *“BSTLM runs on stand alone Personal Computers running Microsoft™*
9 *Windows 98 SE or Microsoft Windows NT 4.0 SP4 or higher. The*
10 *operating system must be capable of supporting continuous disk partitions*
11 *up to 20 GB. “*

12
13 *“Because of the increased stability of Microsoft Windows NT SP4 (or*
14 *higher) and Microsoft Excel 2000, these products represent the*
15 *recommended operating system and recommended version of Microsoft*
16 *Excel. Both products, in tandem, have demonstrated increased stability*
17 *over companion Microsoft products.*

18
19 *BSTLM is only supported when running Windows 98 SE and Microsoft*
20 *Excel 2000 or Microsoft Windows NT (SP4) and Microsoft Excel 97 SP2*
21 *or Excel 2000.”*
22

23 At the time the model was developed, the Microsoft ME operating system was not
24 generally available. Therefore, ME was not a recommended platform for running the

1 model. But, we are in the process of testing the BSTLM in ME and we are looking into
2 providing a formal fix for the ME run-time issue.

3
4 **Q. MS. WILSKY STATES ON PAGE 4 THAT THE SOFTWARE NEEDED TO**
5 **INSTALL THE MODEL MUST BE HIGHLY SPECIFIC WITH A SPECIFIC**
6 **RELEASE DATA. IS THIS TRUE?**

7
8 A. No. There is no special software needed to load the BSTLM as filed in South Carolina,
9 And to my knowledge, no one in this proceeding has reported any issues or problems
10 installing the model.

11
12 **Q. MS. WILSKY FURTHER CONTENDS ON PAGE 6 THAT HER RUN TIME**
13 **ERRORS AND RUN TIME ISSUES ENCOUNTERED IN OTHER STATES**
14 **SUPPORT HER CLAIM THAT THE MODEL HAS NOT BEEN THOROUGHLY**
15 **TESTED. CAN YOU RESPOND TO THIS ISSUE?**

16
17 A. Yes. Ms. Wilsky's claim is far from the truth. CostQuest and BellSouth have performed
18 extensive testing on the BSTLM platform and data. The Beta version of the Model was
19 released in the last Quarter of 1999. Changes and modifications resulting from our beta
20 testing were implemented in the first official release of the model in early 2000.
21 Additional changes were implemented in 2000 that resulted in the Version 1.3.15 that
22 was filed in these proceedings. To review what we have done to date to test the model,
23 we have tested:

- 24 ▪ 9 states of data on multiple operating systems,

- 1 ▪ 9 states of data on running multiple versions of Microsoft Excel, under
- 2 operating systems and configurations listed in the User's Guide,
- 3 ▪ 9 states of data using multiple input scenarios, and
- 4 ▪ 9 states of data on different computers in different locations.

5

6 All in all, we made hundreds of successful runs. We have taken great pains to make sure

7 that BSTLM is a solid, stable system suitable for the complexities of these UNE

8 proceedings. And, while patches have been released in other proceedings, this is typical

9 for any production software package. One need only visit the Microsoft update pages,

10 <http://windowsupdate.microsoft.com/>, to realize this.

11

12 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

13

14 **A. Yes it does.**

STATE OF SOUTH CAROLINA)
) CERTIFICATE OF SERVICE
 COUNTY OF RICHLAND)

The undersigned, Susan Davis Gibson, hereby certifies that she is employed by the Legal Department for BellSouth Telecommunications, Inc. ("BellSouth") and that she has caused the Rebuttal Testimony of James W. Stegeman to be served by placing such in the care and custody of the United States Postal Service, with first-class postage affixed thereto and addressed to the following this June 11, 2001:

Elliott F. Elam, Jr., Esquire
 S. C. Department of Consumer Affairs
 3600 Forest Drive, 3rd Floor
 Post Office Box 5757
 Columbia, South Carolina 29250-5757
 (Consumer Advocate)

Francis P. Mood, Esquire
 Haynsworth Sinkler & Boyd
 Post Office Box 11889
 Columbia, South Carolina 29211-1889
 (AT&T)

F. David Butler, Esquire
 General Counsel
 S. C. Public Service Commission
 Post Office Box 11649
 Columbia, South Carolina 29211
 (PSC Staff)

Darra W. Cothran, Esquire
 Carolyn C. Matthews, Esquire
 Woodward, Cothran & Herndon
 1200 Main Street, 6th Floor
 Post Office Box 12399
 Columbia, South Carolina 29211
 (MCI WorldCom Network Service, Inc.
 MCI WorldCom Communications and
 MCI metro Access Transmission Services,
 Inc.)

Russell B. Shetterly, Esquire
Haynsworth, Marion, McKay & Guerard, L.L.P.
Post Office Drawer 7157
Columbia, South Carolina 29202
(ACSI)

John F. Beach, Esquire
John J. Pringle, Jr., Esquire
Beach Law Firm
1321 Lady Street, Suite 310
Post Office Box 11547
Columbia, South Carolina 29211-1547
(TriVergent and SCPCA)

Marsha A. Ward, Esquire
Kennard B. Woods, Esquire
MCI WorldCom, Inc.
Law and Public Policy
6 Concourse Parkway, Suite 3200
Atlanta, Georgia 30328
(MCI)

Frank R. Ellerbe, Esquire
Bonnie D. Shealy, Esquire
Robinson, McFadden & Moore, P.C.
1901 Main Street, Suite 1500
Post Office Box 944
Columbia, South Carolina 29202
(NewSouth Communications Corp.)

Robert Carl Voight
Senior Attorney
141111 Capital Blvd.
Wake Forest, NC 27587-5900
(Sprint/United Telephone)

Marty Bocock
Director of Regulatory Affairs
1122 Lady Street, Suite 1050
Columbia, South Carolina 29201
(Sprint/United Telephone Company)

John J. Pringle, Jr., Esquire
Beach Law Firm, P.A.
Post Office Box 11547
Columbia, South Carolina 29211-1547
(AIN)

Henry C. Campen, Jr., Esquire
Parker Poe Adams & Bernstein LLP
150 Fayetteville Street Mall
Suite 1400
Raleigh, North Carolina 27602
(Broadslate Networks of SC, Inc.
ITC^DeltaCom Communications, Inc.
KMC Telecom III, Inc.)

Faye A. Flowers, Esquire
Parker, Poe, Adams & Bernstein LLP
1201 Main Street, Suite 1450
Columbia, South Carolina 29202
(Broadslate Networks of SC, Inc.
ITC^DeltaCom Communications, Inc.
KMC Telecom III, Inc.)



SUSAN DAVIS GIBSON